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XP-002240238

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AN - 1971:89220 CAPLUS
DN - 74:89220
TI - Concentrated sulfuric anhydride
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PA - Samoilov, Ya. V., Scientific-Research Institute of Fertilizers and
Insectofungicides
SO - U.S.S.R.
From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1970, 47(3):
222.
CODEN: URXXAF
DT - Patent
LA - Russian
IC - C01B
CC - 49 (Industrial Inorganic Chemicals)
FAN.CNT 1

	<u>PATENT NO.</u>	<u>KIND</u>	<u>DATE</u>	<u>APPLICATION NO.</u>	<u>DATE</u>
PN	SU226567		19701029	SU	19651117
AB	Concd. SO ₃ was produced from gaseous mixts. To obtain easily transpo dry solid product, the gaseous mixt. was adso rbed on silica gel at 50-120.degree., with subsequent desorption at 150-300.degree.. ST - sulfuric anhydride; anhydride sulfuric IT - 7446-11-9P , preparation RL: PREP (Preparation) (adsorption - desorption process for, for dry transportable f				

Union of Soviet Socialist Republics	INVENTION SPECIFICATION Pertaining to a Certificate of Authorship	226567
State Committee of the USSR on Matters of Inventions and Discoveries	Dependent on Certificate of Authorship No. – Filed November 17, 1965 (No. 1038138-23-26) with Appended Application No. – Priority – Announced October 29, 1970 Bulletin No. 33 Specification published January 6, 1971	Class 12i, 17/70 MPC C 01b UDC 661.257 (088.8)

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METHOD FOR PRODUCTION OF CONCENTRATED SULFUR TRIOXIDE

The invention pertains to a method for the production of concentrated sulfur trioxide from gas mixtures, which is used for the sulfation of different compounds.

A method is known for producing concentrated sulfur trioxide from gas mixtures, with the subsequent formation of oil by adsorption of sulfur trioxide in sulfuric acid bubbling apparatuses.

The proposed method differs from the known one in that the gas mixture is sorbed with silica gel at $t = 50-120^{\circ}\text{C}$ with subsequent desorption at $t = 150-300^{\circ}\text{C}$.

This difference promotes the production of a dry, solid product suitable for transport.

Example. 1000 m^3 of a gas mixture containing 7% SO_3 at a temperature of 120°C is sent to an apparatus with sieve plates, in which silica gel is moved from plate to plate through overflow tubes in opposition to the gas. The SO_3 is sorbed by the silica gel and remains dry. At the output from the apparatus, 500 kg of product is obtained, containing SO_3 in an amount of 100% by weight of the silica gel. At the usage location, the obtained product is heated to $t = 300^{\circ}\text{C}$ to produce concentrated SO_3 .

CLAIM

Method for the production of concentrated sulfur trioxide from gas mixtures, characterized by the fact that, in order to obtain a dry, solid product that is convenient for transport, the gas mixture is sorbed with silica gel at $t = 50-120^{\circ}\text{C}$ and subsequent desorption at $t = 150-300^{\circ}\text{C}$.